

Claims

1. An axial piston machine comprising two cylinder drums which are guided in a housing, can be respectively rotated about a drum axis and are respectively supported on an inclined surface, wherein pistons which can be rotated about a shaft axis inclined with respect to the drum axes are allocated to each cylinder drum, wherein pressure chambers adapted to be connected to a pressure port and a tank port, respectively, of the housing via pressure and tank channels are confined by cylinders of the cylinder drums and the pistons characterized in that the inclined surfaces are arranged in the region between the two cylinder drums and that the channels end in the inclined surfaces.
2. An axial piston machine according to claim 1, wherein the inclined surfaces are formed on end faces of a control disk through which a drive shaft or output shaft passes.
3. An axial piston machine according to claim 2, wherein an insulating layer is formed between the control disk and the housing.
4. An axial piston machine according to claim 2 or 3, wherein the control disk has a flattened portion as a protection against torsional twist.
5. An axial piston machine according to claim 4, wherein an axial distance of a central axis of the pressure port and the cross-sectional area of the pressure channel are selected in the transient portion between the housing and the control disk such that the radial force acting on the control disk and the torque resulting therefrom can be compensated for by the forces of pressure acting via the pressure port on the control disk.
6. An axial piston machine according to any one of the preceding claims, wherein the control disk includes control members located on a joint reference circle in which the pressure and tank ports end.

7. An axial piston machine according to any one of the preceding claims, wherein it is operated as hydraulic pump or as hydraulic motor.